

ELECTRONIC TUBE REFERENCE

CAT14

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Massive water-cooled Marconi transmitting triode for very-high-power RF service. Approximately 150 kW plate dissipation and 20 kV plate capability support Class C output in the hundreds-of-kilowatts range.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	32.5 V / 460 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.05 S
AMPLIFICATION FACTOR	45
MAXIMUM PLATE VOLTAGE	20000 V
MAXIMUM PLATE DISSIPATION	150000 W
MAXIMUM GRID DISSIPATION	8000 W
MAXIMUM CATHODE CURRENT	30 A

Water-cooled transmitting triode for communications and RF-heating amplifiers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1955 Marconi

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1955 MARCONI

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage	32.5 V	—
Filament Current	460 A	—
Amplification Factor	45	—
Transconductance	50000 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage	20000 V	—
Maximum Anode Dissipation	150000 W	—
Maximum Grid Dissipation	8000 W	—
Maximum/Peak Cathode Current	30 A	—
Frequency at Full Ratings	10 MHz	—
Typical RF Output Power	272 kW	Class C, 20 kV

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-Grid Capacitance	52 pF	—
Anode-Cathode Capacitance	4.5 pF	—
Grid-Cathode Capacitance	100 pF	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling	Water plus seal air	—

TUBE TINKER

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and their source documents.

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